BOSTER
antibody and ELISA experts

BOSTER BIOLOGICAL TECHNOLOGY
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# Anti-IFN-beta IFNB1 Antibody

**Catalog Number:** A02041-1

## About IFNB1

Type I Interferons (IFN-alpha/beta) are produced primarily in response to viral infection by "Natural IFN-producing cells" (IPCs) as part of the host immune response and can also inhibit the development of tumors. IFN-beta binding by its receptor results in the activation of the tyrosine kinases Jak1 and Tyk2 and phosphorylation of members of the STAT family of transcription factors, leading to the transcription and expression of the immune response genes. More recently, several members of the toll-like receptor (TLR) family were found to stimulate the production IFN-beta. IFN-beta is currently used clinically for treatment of tumors, infections and multiple sclerosis.

## Overview

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| Product Name | Anti-IFN-beta IFNB1 Antibody |
| Reactive Species | Human, Mouse, Rat |
| Description | Boster Bio Anti-IFN-beta IFNB1 Antibody (Catalog # A02041-1). Tested in ELISA, WB, IHC-P, IF applications. This antibody reacts with Human, Mouse, Rat. |
| Application | ELISA, IF, IHC-P, WB |
| Clonality | Polyclonal |
| Formulation | IFN-beta Antibody is supplied in PBS containing 0.02% sodium azide. |
| Storage Instructions | IFN-beta antibody can be stored at 4°C up to one year. Antibodies should not be exposed to prolonged high temperatures. |
| Host | Rabbit |
| Uniprot ID | P01574 |

## Technical Details

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| Immunogen | Anti-IFN-beta antibody was raised against a peptide corresponding to 17 amino acids near the center of human IFN-beta. The immunogen is located within amino acids 110-160 of IFN-beta. |
| Predicted Reactive Species | Bovine, Chicken |
| Cross Reactivity | ERAP1 antibody is human and mouse reactive. At least two isoforms of ERAP1 are known to exist; this antibody will detect both isoforms. ERAP1 antibody is predicted to not cross-react with ERAP2. |
| Isotype | IgG |
| Form | Liquid |
| Concentration | 1 mg/mL |
| Purification | IFN-beta Antibody is affinity chromatography purified via peptide column. |

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| Suggested Dilutions | Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.<br>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.<br>Some PubMed article(s) citing the expression level of this target are as follows:<br>Boster Bio's internal QC testing used:<br>WB: 4-10 ug/mL; IHC: 2.5 ug/mL; IF: 20 ug/mL.<br>Antibody validated: Western Blot in human, mouse and rat samples; Immunohistochemistry in human samples; Immunofluorescence in human and mouse samples. All other applications and species not yet tested. Optimal dilutions for each application should be determined by the researcher. |

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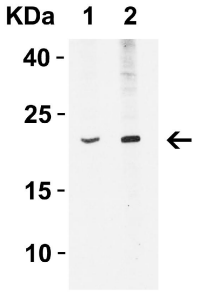
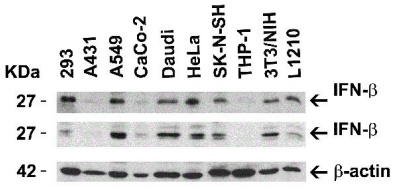
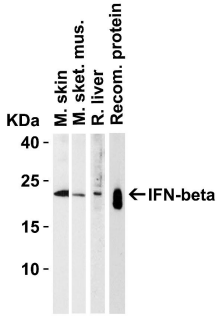
# Anti-IFN-beta IFNB1 Antibody (A02041-1) Images



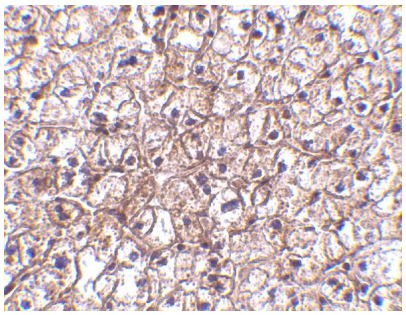

**Western Blot Validation in Mouse A20 Cell Lysate**
Loading: 15 ug of lysates per lane.Antibodies: IFN-beta A02041-1 (Lane 1: 5 ug/mL and Lane 2: 10 ug/mL), 1h incubation at RT in 5% NFDM/TBST.Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



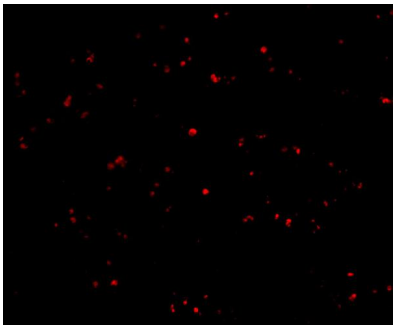

**Independent Antibody Validation (IAV) via Protein Expression Profile in Human and Mouse Cell Lines**
Loading: 15 ug of lysates per lane.Antibodies: IFN-beta A02041-1 (4 ug/mL), IFN-beta, (5 ug/mL) and beta-actin (1 ug/mL), 1h incubation at RT in 5% NFDM/TBST.Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.




**Western Blot Validation in Multiple Tissues and Recombinant Protein**
Loading: 15 ug of lysates per lane. Antibodies: IFN-beta A02041-1 (4 ug/mL), 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



**Immunohistochemistry Validation of IFN-beta in Human Liver Tissue**
Immunohistochemical analysis of paraffin-embedded human liver tissue using anti-IFN-beta antibody (A02041-1) at 5 ug/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4˚C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.



**Immunofluorescence Validation of IFN-beta in Human Liver Cells**
Immunofluorescent analysis of 4% paraformaldehyde-fixed human liver cells labeling IFN-beta with A02041-1 at 20 ug/mL, followed by goat anti-rabbit IgG secondary antibody at 1/500 dilution (red).

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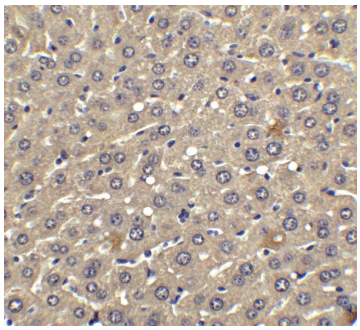
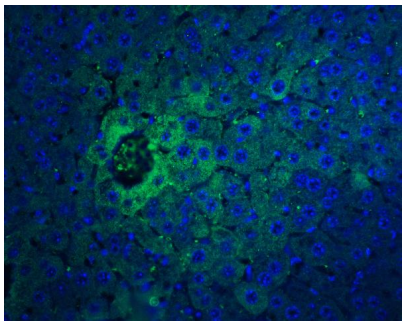


**Immunohistochemistry Validation of IFN-beta in Human Liver Tissue**
Immunohistochemical analysis of paraffin-embedded human liver tissue using anti-IFN-beta antibody (A02041-1) at 2.5 ug/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4˚C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.



**Immunofluorescence Validation of IFN-beta in Mouse Liver Tissue**
Immunofluorescent analysis of 4% paraformaldehyde-fixed mouse liver tissue labeling IFN-beta with A02041-1 at 20 ug/mL, followed by goat anti-rabbit IgG secondary antibody at 1/500 dilution (green) and DAPI staining (blue).



Anti-IFN-beta IFNB1 Antibody